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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,452	07/21/2003	Timothy Geoffrey Frindt		3105

7590 01/25/2005  
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CANADA

EXAMINER

KRISHNAMURTHY, RAMESH

ART UNIT PAPER NUMBER

3753

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/623,452

Applicant(s)

FRINDT, TIMOTHY GEOFFREY

Examiner

Ramesh Krishnamurthy

Art Unit

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 - 18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

This office action is responsive to communications filed 11/08/2004.

**Claims 1 – 18 are pending.**

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 5 – 11 and 15 – 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ryan, Jr. (US 2,902,048) in view of Semon (US 4,592,385).

Ryan, Jr. discloses (Figs. 3 and 4) a direct-response pressure-operated regulating valve including, a housing and flexible diaphragm means (46) dividing the housing into a control pressure chamber (44) and an outlet chamber (40), a valve seat (64) that is connectable with a fluid conduit (62) containing pressurized fluid, and a valve closing means (90,94) attached to the diaphragm means to cooperate with the valve seat and the outlet chamber, whereby pressurized fluid admitted to the control chamber (44) causes movement of the diaphragm means thereby controlling pressure in the fluid conduit.

The patent to Ryan, Jr. discloses the claimed invention with the exception of explicitly disclosing adjustment means for moving the valve seat relative to the housing.

Semon discloses a pressure regulating valve comprising a diaphragm (70) and a valve seat adjusting means (44) associated with the valve seat (58) for the purpose of setting a suitable operating pressure of the valve.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided in the device of Ryan, Jr. adjustment means for moving the valve seat relative to the housing for the purpose of setting a suitable operating pressure of the valve, as recognized by Semon. It is noted that such an adjustment inherently makes the effective area of the diaphragm means to be selectively variable.

The device according to the combination of Ryan, Jr. and Semon as set forth above necessarily performs the method recited in claims 9 and 10.

3. Claims 2 – 4 and 12 – 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Ryan, Jr. and Semon as applied to claims 1, 5 – 11 and 15 – 18 above, and further in view of Bertling (US 4,130,266).

The combination of Ryan, Jr. and Semon as set forth above discloses the claimed invention with the exception of explicitly disclosing a resilient means in the valve closing means that cooperates with the valve seat.

Bertling discloses a pressure control valve having a resilient sealing means (22) in the valve closing means (17) for the purpose of providing an effective seal with respect to the valve seat.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided in the combination of Ryan, Jr. and Semon, a resilient means in the valve closing means that cooperates with the valve seat, for the purpose of providing an effective seal with respect to the valve seat, as recognized by Bertling.

Art Unit: 3753

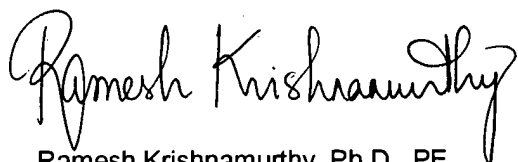
4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramesh Krishnamurthy whose telephone number is (571) 272 - 4914. The examiner can normally be reached on Monday - Friday from 10:00 AM to 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene L. Mancene, can be reached on (571) 272 - 4930. The fax phone number for the organization where this application or proceeding is assigned is (703) 872 - 9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 - 0861.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ramesh Krishnamurthy, Ph.D., PE  
Primary Examiner  
Art Unit 3753